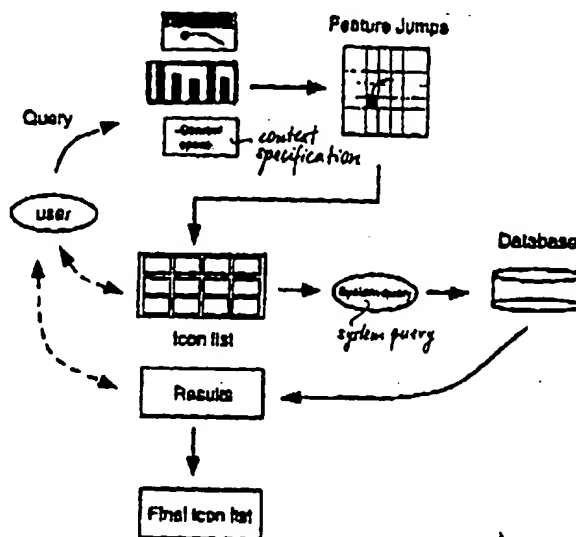




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : G06F 17/30, 19/00	A1	(11) International Publication Number: WO 99/45483 (43) International Publication Date: 10 September 1999 (10.09.99)
<p>(21) International Application Number: PCT/US99/04776</p> <p>(22) International Filing Date: 4 March 1999 (04.03.99)</p> <p>(30) Priority Data: 60/076,781 4 March 1998 (04.03.98) US</p> <p>(71) Applicant (for all designated States except US): THE TRUSTEES OF COLUMBIA UNIVERSITY IN THE CITY OF NEW YORK [US/US]; 116th Street and Broadway, New York, NY 10027 (US).</p> <p>(72) Inventors; and (75) Inventors/Applicants (for US only): CHANG, Shih-Fu [-/US]; Apartment 18K, 560 Riverside Drive, New York, NY 10027 (US). CHEN, William [US/US]; Apartment 34A, 423 West 112th Street, New York, NY 10027 (US). SUNDARAM, Hari [IN/US]; Apartment 9D, 434 West 120th Street, New York, NY 10027 (US).</p> <p>(74) Agents: TANG, Henry et al.; Baker & Botts, LLP, 30 Rockefeller Plaza, New York, NY 10112-0228 (US).</p>	<p>(81) Designated States: CA, JP, KR, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).</p> <p>Published With international search report.</p>	

(54) Title: METHOD AND SYSTEM FOR GENERATING SEMANTIC VISUAL TEMPLATES FOR IMAGE AND VIDEO RETRIEVAL



(57) Abstract

For database image/video retrieval, a semantic visual template (SVT) is a set of icons of example scenes/objects that characterize a concept, e.g. skiing, sunset and the like. SVTs provide for two-way interaction between a user and a system. The user can provide the system with an initial sketch or example image, as a seed to the system to automatically generate other representations of the same concept. The user then can pick those views for inclusion that are plausible for representing the concept. When an SVT has been established, the database can be searched with it, for the user to provide relevancy feedback on the returned results. With established SVTs, the user can interact with the system at concept level. In forming new concepts, pre-existing SVTs can be used. A limited vocabulary can be parsed, in conjunction with semantic visual templates for querying the system.